CLAIMS

1. Scanning microscope with at least one light source defining an illumination beam path and with a spectral detector for detecting the detection light coming from the sample and defining a detection beam path, said scanning microscope containing a spectral splitter component, characterized in that the spectral splitter component separates the illumination beam and the detection beam.

2. Scanning microscope as defined in claim 1, characterized in that the spectral splitter component contains a grating.

3. Scanning microscope as defined in claim 1, characterized in that the spectral splitter component contains a prism.

4. Scanning microscope as defined in claim 1, characterized in that a boundary surface of the prism is reflectively coated at least in part.

5. Scanning microscope as defined in claim 3 or 4, characterized in that the boundary surface reflects internally the detection light or the illumination light.

6. Scanning microscope as defined in one of claims 3 to 5, characterized in that the boundary surface transmits the illumination light or the detection light.

7. Scanning microscope as defined in one of claims 4 to 6, characterized in that the detection light strikes the reflectively coated parts of the boundary surface and that the illumination light strikes the non-reflectively coated parts of the boundary surface.

8. Scanning microscope as defined in one of claims 4 to 7, characterized in that the illumination light strikes the reflectively coated parts of the boundary surface and that the detection light strikes the non-reflectively coated parts of the boundary surface.

9. Scanning microscope as defined in claim 4, characterized in that the non-reflectively coated parts of the boundary surface are provided with an antireflective coating.

10. Scanning microscope as defined in one of claims 4 to 9, characterized in that reflectively coated parts of the boundary surface and non-reflectively coated parts of the boundary surface are disposed alternately next to each other.

11. Scanning microscope as defined in one of claims 4 to 6, characterized in that the boundary surface is covered with a dichroic coating.

12. Scanning microscope as defined in claim 3, characterized in that one boundary surface of the prism is structured in stepped or sawtooth form.

13. Scanning microscope as defined in one of claims 3 to 12, characterized in that the boundary surface totally reflects the detection light or the illumination light internally.

14. Scanning microscope as defined in claim 12 or 13, characterized in that totally internally reflecting parts of the boundary surface and not totally internally reflecting parts of the boundary surface are disposed alternately next to each other.

15. Scanning microscope as defined in claim 13 or 14, characterized in that one boundary surface is provided with segments made of a material the refractive index of which is different from that of the prism.

16. Scanning microscope as defined in one of claims 1 to 15, characterized in that the scanning microscope is a confocal scanning microscope.